We Claim:

1. A method of deriving values for an absorbent medium having super-absorbent polymer dispersed throughout a permeable substruction meshwork of a mass of intertwined stranding, comprising the computer-implemented steps of:

receiving into a computer database data quantities for

a value denoting a mass of liquid to be absorbed by said medium,

a dryness quality value between 0.45 and 0.85 wherein 0.45 denotes an medium having a maximal dryness quality after absorption of said liquid mass and 0.85 denotes an medium having a minimal dryness quality after absorption of said liquid mass,

a porous quality value between 0.4 and 0.95 wherein 0.4 denotes an medium having a minimal porous quality after absorption of said liquid mass and 0.95 denotes an medium having a maximal porous quality after absorption of said liquid mass,

a super-absorbent polymer mass fraction value, and

an absorption capacity value correspondent to a stranding type; and

determining the mass of an intermixture of a super-absorbent polymer component and a stranding component according to

$$m_{total} = \frac{m_{liq}}{\left\{(1-f_s)C_{stranding} + Ff_s\Phi\left[\left(\frac{1}{R_\phi}\right)^{\frac{1}{f_s^{1.83}+0.07}} - 1\right]^{0.54}\right\}}$$

wherein

m_{total} is a value denoting said intermixture mass having units of mass of dry super-absorbent polymer in addition with mass of dry stranding,
m_{liq} is said value denoting said mass of liquid to be absorbed,
f_s is said super-absorbent polymer mass fraction value,
F is 40.58 with units of mass of liquid per mass of dry super-absorbent polymer,
Φ is said dryness quality value,
R_ϕ is said porosity quality value, and
$C_{stranding}$ is said absorption capacity value having units of mass of liquid per mass of dry stranding ;

deriving a value for the mass of said super-absorbent polymer component according to

$$m_{sap} = f_s m_{total}$$

wherein

m_{sap} is said value denoting said super-absorbent polymer component mass;

deriving a value for the mass of said stranding component according to

$$m_{stranding} = (1 - f_s) m_{total}$$

wherein

$m_{stranding}$ is said stranding component mass value;

deriving a calculated centrifuge capacity value according to

$$CRC = \frac{m_{liq} - (1 - f_s) C_{stranding} m_{total}}{\Phi f_s m_{total}}$$

wherein

CRC is said calculated centrifuge capacity value having units of mass of liquid per mass of dry super-absorbent polymer;

selecting a super-absorbent polymer having a measured centrifuge retention capacity value essentially equivalent to said calculated centrifuge retention capacity value; and

displaying upon a monitor of said computer an identifier for said super-absorbent polymer, said polymer mass value, and said stranding component mass value.

2. A method of making an absorbent medium comprising the step of:

intermixing permeable substruction stranding and a mass of super-absorbent polymer particles into a meshwork for absorbing a predefined mass of liquid to a predefined dryness quality, each of said super-absorbent polymer particles having an affiliated centrifuge retention capacity value, said stranding having an affiliated absorption capacity value, said dryness quality denoted by a dryness quality value between 0.45 and 0.85 wherein 0.45 denotes an absorbent medium having a maximal dryness quality after absorption of said liquid mass and 0.85 an absorbent medium having a minimal dryness quality after absorption of said liquid mass, the cumulative mass of all said stranding being

$$m_{stranding} = \frac{m_{liq} - \Phi\,(CRC)\,m_{sap}}{C_{stranding}}$$

wherein

$m_{stranding}$ is a value denoting said cumulative mass of all said stranding,
m_{liq} is a value denoting said predefined mass of liquid to be absorbed,
Φ is said dryness quality value,
CRC is said centrifuge retention capacity value having units of mass of liquid per mass of dry super-absorbent polymer,

m_{sap} is a value denoting the cumulative mass of all said super-absorbent polymer particles, and

$C_{stranding}$ is said absorption capacity value having units of mass of liquid per mass of dry stranding.

3. The method of Claim 2 wherein, in said intermixing step, said super-absorbent polymer particles and stranding are intermixed to further achieve a predefined porous quality, said porous quality denoted by a porous quality value between 0.4 and 0.95 wherein 0.4 denotes an absorbent medium having a minimal porous quality after absorption of said liquid mass and 0.95 denotes an absorbent medium having a maximal porous quality after absorption of said liquid mass, and

wherein said centrifuge retention capacity value is determined according to

$$CRC = F\left[\left(\frac{1}{R_\phi}\right)^{\frac{1}{f_s^{1.83}+0.07}} - 1\right]^{0.54},$$

wherein

F is 40.58 with units of mass of liquid per mass of dry super-absorbent polymer,

R_ϕ is said porous quality value, and

f_s is a super-absorbent polymer mass fraction value according to

$$f_s = \frac{m_{sap}}{m_{sap} + m_{stranding}}$$

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4. A method of making an absorbent medium having a permeable substruction meshwork of a mass of intertwined stranding, comprising the steps of:

defining a value denoting a mass of liquid to be absorbed by said medium;

defining a value denoting a mass of super-absorbent polymer to establish a polymer component portion in said medium, said polymer having an affiliated centrifuge retention capacity value;

defining a dryness quality value between 0.45 and 0.85 wherein 0.45 a medium having a maximal dryness quality after absorption of said liquid mass and 0.85 denotes a medium having a minimal dryness quality after absorption of said liquid mass;

determining a value denoting a mass of said stranding to establish a stranding component portion, said stranding having an affiliated absorption capacity value, said mass of stranding determined as

$$m_{stranding} = \frac{m_{liq} - \Phi\,(CRC)\,m_{sap}}{C_{stranding}}$$

wherein

$m_{stranding}$ is said value denoting said mass of stranding,
m_{liq} is said value denoting said mass of liquid to be absorbed,
Φ is said dryness quality value,
CRC is said centrifuge retention capacity value having units of mass of liquid per mass of dry super-absorbent polymer,
m_{sap} is said mass of super-absorbent polymer, and ,
$C_{stranding}$ is said absorption capacity value having units of mass of liquid per mass of dry stranding;

measuring a quantity of super-absorbent polymer essentially equivalent to said polymer mass value to establish said super-absorbent polymer component portion;

measuring a quantity of stranding essentially equivalent to said stranding mass value to establish said stranding component portion; and

disposing said super-absorbent polymer component portion throughout said stranding component portion to provide said medium.

5. A method of making an absorbent medium having a permeable substruction meshwork of a mass of intertwined stranding, comprising the steps of:

defining a value denoting a mass of liquid to be absorbed by said medium;

defining a dryness quality value between 0.45 and 0.85 wherein 0.45 denotes a medium having a maximal dryness quality after absorption of said liquid mass and 0.85 denotes a medium having a minimal dryness quality after absorption of said liquid mass;

defining a porous quality value between 0.4 and 0.95 wherein 0.4 denotes a medium having a minimal porous quality after absorption of said liquid mass and 0.95 denotes a medium having a maximal porous quality after absorption of said liquid mass;

defining a super-absorbent polymer mass fraction value;

selecting a stranding type, said stranding type having an affiliated absorption capacity value;

determining the mass of an intermixture of a super-absorbent polymer component and a stranding component according to

$$m_{total} = \frac{m_{liq}}{\left\{ (1-f_s)C_{stranding} + Ff_s\Phi\left[\left(\frac{1}{R_\phi}\right)^{\frac{1}{f_s^{1.83}+0.07}} - 1\right]^{0.54} \right\}}$$

wherein

m_{total} is a value denoting said intermixture mass having units of mass of dry super-absorbent polymer in addition with mass of dry stranding,

m_{liq} is said value denoting said mass of liquid to be absorbed,

f_s is said super-absorbent polymer mass fraction value,

F is 40.58 with units of mass of liquid per mass of dry super-absorbent polymer,

Φ is said dryness quality value,

R_ϕ is said porosity quality value, and

$C_{stranding}$ is said absorption capacity value having units of mass of liquid per mass of dry stranding;

deriving a value for the mass of said super-absorbent polymer component according to

$$m_{sap} = f_s m_{total}$$

wherein

m_{sap} is said value denoting said super-absorbent polymer component mass;

deriving a value for the mass of said stranding component according to

$$m_{stranding} = (1 - f_s) m_{total}$$

wherein

$m_{stranding}$ is said stranding component mass value;

deriving a calculated centrifuge capacity value according to

$$CRC = \frac{m_{liq} - (1 - f_s) C_{stranding} m_{total}}{\Phi f_s m_{total}}$$

wherein

CRC is said calculated centrifuge capacity value having units of mass of liquid per mass of dry super-absorbent polymer;

selecting a super-absorbent polymer having a measured centrifuge retention capacity value essentially equivalent to said calculated centrifuge retention capacity value;

measuring a quantity of said super-absorbent polymer essentially equivalent to said super-absorbent polymer component mass value to establish a super-absorbent polymer component portion;

measuring a quantity of stranding of said stranding type essentially equivalent to said stranding component mass value to establish a stranding component portion; and

disposing said super-absorbent polymer component portion throughout said stranding component portion to provide said medium.

6. The method of either of Claims 4 or 5 wherein said intertwined stranding comprises cellulose fluff.

7. The method of either of Claims 4 or 5 wherein said intertwined stranding comprises a permeable sponge.

8. The method of either of Claims 4 or 5 wherein said intertwined stranding comprises a fibrous polymer.

9. The method of either of Claims 4 or 5 wherein said disposing step further comprises the steps of:

positioning a first tissue cover in a pad former;

intermixing said super-absorbent polymer portion and stranding portion to provide said absorption medium;

placing said absorption medium upon said first tissue cover;

positioning a second tissue cover upon said disposed absorption medium; and

heating and compressing said first tissue, said second tissue, and said disposed absorption medium to a predefined thickness.

10. Super-absorbent polymer cumulation for absorbing a targeted weight of aqueous liquid, said super-absorbent polymer cumulation having an affiliated centrifuge retention capacity value, said super-absorbent polymer cumulation having a super-absorbent mass between a 1.18 and a 2.22 multiple of an absorption design-instance parameter derived from said aqueous liquid weight and from said centrifuge retention capacity value according to

$$K = \frac{m_{liq}}{CRC}$$

wherein

m_{liq} is a value denoting said targeted weight of liquid,
CRC is said centrifuge capacity value having units of mass of liquid per mass of dry super-absorbent polymer, and
K is said absorption design-instance parameter;

so that a sufficiently minimal amount of super-absorbent polymer is provided for effectively minimizing free aqueous liquid within said super-absorbent polymer cumulation after said targeted weight of aqueous liquid has been absorbed such that said super-absorbent polymer cumulation with said targeted weight of absorbed aqueous liquid provides sustained tactile dryness.

11. An absorbent medium for absorbing a targeted weight of aqueous liquid, comprising:

super-absorbent polymer dispersed throughout a permeable substruction meshwork, said permeable substruction meshwork having a mass of intertwined stranding, said stranding

having an affiliated absorption capacity value, said super-absorbent polymer having an affiliated centrifuge retention capacity value, said super-absorbent polymer having a super-absorbent mass between a 1.18 and a 2.22 multiple of an absorption design-instance parameter derived from said aqueous liquid weight, said absorption capacity value, said mass of stranding, and said centrifuge retention capacity value according to

$$K = m_{liq}\left(\frac{m_{liq} - C_{stranding}m_{stranding}}{CRCm_{liq}}\right)$$

wherein

m_{liq} is a value denoting said targeted weight of liquid,
$C_{stranding}$ is said absorption capacity value having units of mass of liquid per mass of dry stranding,
CRC is said centrifuge capacity value having units of mass of liquid per mass of dry super-absorbent polymer,
$m_{stranding}$ is a value denoting said mass of stranding, and
K is said absorption design-instance parameter;

so that a sufficiently minimal amount of super-absorbent polymer is provided for effectively minimizing free aqueous liquid within said absorbent medium after said targeted weight of aqueous liquid has been absorbed such that said absorbent medium with said targeted weight of absorbed aqueous liquid provides sustained tactile dryness.

12. The medium of Claim 11 wherein said intertwined stranding comprises cellulose fluff.

13. The medium of Claim 11 wherein said intertwined stranding comprises a permeable sponge.

14. The medium of Claim 11 wherein said intertwined stranding comprises a fibrous polymer.